

SEQUENCE LISTING

IAP20 REC'D PCT/IE 11 APR 2006

<110> The Provost, Fellows and Scholars of the Holy and Undivided
Trinity of Queen Elizabeth, near Dublin

<120> Adenylate cyclase (CyaA) toxin in the treatment and/or
prophylaxis of immune-mediated disorder

<130> TRI202/C

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<170> PatentIn version 3.3

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Pro Gln Ala Tyr Phe Glu Lys Asn Leu Gln Ala Arg His Glu Gln Leu
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Ala Asn Ser Asp Gly Leu Arg Lys Met Leu Ala Asp Leu Gln Ala Gly
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Trp Asn Ala Ser Ser Val Ile Gly Val Gln Thr Thr Glu Ile Ser Lys
785 790 795 800

Ser Ala Leu Glu Leu Ala Ala Ile Thr Gly Asn Ala Asp Asn Leu Lys
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Ser Val Asp Val Phe Val Asp Arg Phe Val Gln Gly Glu Arg Val Ala
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Gly Gln Pro Val Val Leu Asp Val Ala Ala Gly Gly Ile Asp Ile Ala
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Ser Arg Lys Gly Glu Arg Pro Ala Leu Thr Phe Ile Thr Pro Leu Ala
850 855 860

Ala Pro Gly Glu Glu Gln Arg Arg Arg Thr Lys Thr Gly Lys Ser Glu
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Phe Thr Thr Phe Val Glu Ile Val Gly Lys Gln Asp Arg Trp Arg Ile
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Arg Asp Gly Ala Ala Asp Thr Thr Ile Asp Leu Ala Lys Val Val Ser
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Gln Leu Val Asp Ala Asn Gly Val Leu Lys His Ser Ile Lys Leu Asp
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Val Ile Gly Gly Asp Gly Asp Asp Val Val Leu Ala Asn Ala Ser Arg
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Ile His Tyr Asp Gly Gly Ala Gly Thr Asn Thr Val Ser Tyr Ala Ala
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Leu Gly Arg Gln Asp Ser Ile Thr Val Ser Ala Asp Gly Glu Arg Phe
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Ala Thr Gln Thr Thr Ala Tyr Gly Lys Arg Thr Glu Asn Val Gln Tyr
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Glu Glu Arg Leu Glu Arg Met Gly Asp Thr Gly Ile His Ala Asp 1115 1120 1125				
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Ser Val Asp His Val Lys Asn Ile Glu Asn Leu His Gly Ser Arg 1145 1150 1155				
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Ile His Pro Gly Arg Ile Val Ala Pro His Glu Tyr Gly Phe Gly 1235 1240 1245				
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Ala Lys Glu Lys Asn Ala Thr Leu Met Phe Arg Leu Val Asn Pro His
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Ser Thr Ser Leu Ile Ala Glu Gly Val Ala Thr Lys Gly Leu Gly Val
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His Ala Lys Ser Ser Asp Trp Gly Leu Gln Ala Gly Tyr Ile Pro Val
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Asn Pro Asn Leu Ser Lys Leu Phe Gly Arg Ala Pro Glu Val Ile Ala
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Arg Ala Asp Asn Asp Val Asn Ser Ser Leu Ala His Gly His Thr Ala
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Val Asp Leu Thr Leu Ser Lys Glu Arg Leu Asp Tyr Leu Arg Gln Ala
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Gly Leu Val Thr Gly Met Ala Asp Gly Val Val Ala Ser Asn His Ala
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Gly Tyr Glu Gln Phe Glu Phe Arg Val Lys Glu Thr Ser Asp Gly Arg
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Tyr Ala Val Gln Tyr Arg Arg Lys Gly Gly Asp Asp Phe Glu Ala Val
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Lys Val Ile Gly Asn Ala Ala Gly Ile Pro Leu Thr Ala Asp Ile Asp
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Met Phe Ala Ile Met Pro His Leu Ser Asn Phe Arg Asp Ser Ala Arg
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Ser Ser Val Thr Ser Gly Asp Ser Val Thr Asp Tyr Leu Ala Arg Thr
225 230 235 240

Arg Arg Ala Ala Ser Glu Ala Thr Gly Gly Leu Asp Arg Glu Arg Ile
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Asp Leu Leu Trp Lys Ile Ala Arg Ala Gly Ala Arg Ser Ala Val Gly
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Thr Glu Ala Arg Arg Gln Phe Arg Tyr Asp Gly Asp Met Asn Ile Gly
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Val Ile Thr Asp Phe Glu Leu Glu Val Arg Asn Ala Leu Asn Arg Arg
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Gly Val Pro Ser Gly Arg Ser Lys Phe Ser Pro Asp Val Leu Glu Thr
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Val Pro Ala Ser Pro Gly Leu Arg Arg Pro Ser Leu Gly Ala Val Glu
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Arg Gln Asp Ser Gly Tyr Asp Ser Leu Asp Gly Val Gly Ser Arg Ser
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Ala Glu Pro Gly Val Ser Gly Ala Ser Ala His Trp Gly Gln Arg Ala
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Gln Glu Ala Ala Ser Leu Ser Ala Ala Val Phe Gly Leu Gly Glu Ala
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Ala Gly Ala Ala Ala Gly Ala Leu Ala Ala Ala Leu Ser Pro Met Glu
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Leu Ala Gln Glu Ser Ser Ala Tyr Gly Tyr Glu Gly Asp Ala Leu Leu
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Ala Gln Leu Tyr Arg Asp Lys Thr Ala Ala Glu Gly Ala Val Ala Gly
675 680 685

Val Ser Ala Val Leu Ser Thr Val Gly Ala Ala Val Ser Ile Ala Ala
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Glu Lys Leu Ala Asn Asp Tyr Ala Arg Lys Ile Asp Glu Leu Gly Gly
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Pro Gln Ala Tyr Phe Glu Lys Asn Leu Gln Ala Arg His Glu Gln Leu
755 760 765

Ala Asn Ser Asp Gly Leu Arg Lys Met Leu Ala Asp Leu Gln Ala Gly
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Trp Asn Ala Ser Ser Val Ile Gly Val Gln Thr Thr Glu Ile Ser Lys
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Phe Thr Thr Phe Val Glu Ile Val Gly Lys Gln Asp Arg Trp Arg Ile
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Arg Asp Gly Ala Ala Asp Thr Thr Ile Asp Leu Ala Lys Val Val Ser
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Gln Leu Val Asp Ala Asn Gly Val Leu Lys His Ser Ile Lys Leu Asp
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Ile His Tyr Asp Gly Gly Ala Gly Thr Asn Thr Val Ser Tyr Ala Ala
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Leu Gly Arg Gln Asp Ser Ile Thr Val Ser Ala Asp Gly Glu Arg Phe
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Asn Val Arg Lys Gln Leu Asn Asn Ala Asn Val Tyr Arg Glu Gly Val
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Ala Thr Gln Thr Thr Ala Tyr Gly Lys Arg Thr Glu Asn Val Gln Tyr
995 1000 1005

Arg His Val Glu Leu Ala Arg Val Gly Gln Val Val Glu Val Asp
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Thr Leu Glu His Val Gln His Ile Ile Gly Gly Ala Gly Asn Asp
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Val Asp Lys Leu Gly Glu Ala Gly Ser Ser Ala Tyr Asp Thr Val
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Ala Gly Ile Glu Lys Leu Val Glu Ala Met Ala Gln Tyr Pro Asp
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